CLAIMS

1. A composition, for delivery of a therapeutic agent to a neuronal cell, comprising:

the therapeutic agent, and

a neuronal cell targeting component, which component comprises a H_c domain of botulinum C_1 toxin, or a fragment, variant, or derivative thereof, which retains the function of the native H_c domain.

2. A composition according to Claim 1 further comprising a domain for translocation of the therapeutic agent into a cell.

3. A composition according to Claim 2 wherein the translocation domain is derived from a clostridial source.

4. A composition according to Claim 2 wherein the translocation domain is derived from a non-clostridial source.

5. A composition according to Claim 3 wherein the translocation domain is derived from *C. botulinum, C. butylicum, C. argentinense* or C. *tetani.*

6. A composition according to Claim 4 wherein the translocation domain is derived from diphtheria toxin, *Pseudomonas* exotoxin A, influenza virus haemagglutinin fusogenic peptides or amphiphilic peptides.

7. A composition according to Claim 2, wherein the translocation domain is derived from botulinum C_1 toxin and fragments, variants and derivatives thereof, or diphtheria toxin and fragments, variants and derivatives thereof.

8. A composition according to Claim 2 wherein the translocation domain is a membrane disrupting peptide.

9. A composition according Claim 1, wherein the therapeutic agent is

selected from the group consisting of drugs, growth factors, enzymes, DNA, modified viruses, drug release systems, or a combination thereof.

10. A composition according to Claim 9, wherein the therapeutic agent inhibits at least one member of the Rho family of GTPases.

11. A composition according to Claim 10, wherein the therapeutic agent is a C3 enzyme.

12. A composition according to Claim 11, wherein the C3 enzyme is derived from *C. botulinum, C. limosum, B. cereus, S. aureus, C. acetobutylicum, S. pyogenes, L. monocytogenes.*

13. A composition according to Claim 11 wherein the C3 enzyme is selected from the group consisting of C3Stau2, C3Stau1, and C3bot.

14. A composition according to Claim 11 wherein the C3 enzyme is selected from SEQ ID Nos: 1-10.

15. A composition according to any preceding claim wherein the H_c domain is made recombinantly.

16. A composition according any preceding claim, wherein the therapeutic agent and the H_c domain are joined to each other directly or via a linker molecule.

17. A composition according to any of Claims 2-15 wherein the therapeutic agent, the Hc domain and the translocation domain are joined to each other directly or via a linker molecule.

18. A composition according to Claim 16 or 17, wherein the linker molecule is selected from the group consisting of $(GGGGS)_2$, $(GGGGS)_3$, the interdomain linker of cellulase, PPPIEGR, collagen-like spacer, trypsin-sensitive diphtheria toxin peptide, or SEQ ID Nos: 16-24.

19. A composition according to any preceding claim wherein the

composition is a single polypeptide.

20. A composition according to any of Claims 1-18 , wherein the composition is a dichain polypeptide.

21. A composition according to any preceding claim, wherein the composition is a suspension, emulsion, solution or a freeze-dried powder.

22. A composition according to any preceding claim, wherein the construct of the invention is re-suspended or diluted in a pharmaceutically acceptable liquid.

23. A method of making a composition of the invention according to any of Claims 1-22 comprising expressing a DNA encoding the therapeutic agent and the neuronal cell targeting domain.

24. Use of the composition of any of Claims 1-22 for the manufacture of a medicament for promoting nerve regeneration.

25. A polypeptide construct comprising an inhibitor of a member of the Rho family of GTPases, for use in neuronal cell therapy.

26. A polypeptide according to Claim 25 further comprising

a neuronal cell targeting component, which component comprises a H_c domain of botulinum C_1 toxin, or a fragment, variant, or derivative thereof, which retains the function of the native H_c domain,

and a domain for translocation of the therapeutic agent into a cell.

27. A polypeptide according to Claim 26 wherein the translocation domain is derived from a clostridial source.

28. A polypeptide according to Claim 26 wherein the translocation domain is derived from a non-clostridial source.

29. A polypeptide according to Claim 27 wherein the translocation domain is derived from *C. botulinum, C. butylicum, C. argentinense* or C. *tetani*.

30. A polypeptide according to Claim 28 wherein the translocation domain is derived from diphtheria toxin, *Pseudomonas* exotoxin A, influenza virus haemagglutinin fusogenic peptides or amphiphilic peptides.

31. A polypeptide according to Claim 26, wherein the translocation domain is derived from botulinum C_1 toxin and fragments, variants and derivatives thereof, or diphtheria toxin and fragments, variants and derivatives thereof.

32. A polypeptide according to Claim 26 wherein the translocation domain is a membrane disrupting peptide.

33. A polypeptide according to Claim 25, wherein the inhibitor is a C3 enzyme.

34. A polypeptide according to Claim 33, wherein the C3 enzyme is derived from *C. botulinum, C. limosum, B. cereus, S. aureus, C. acetobutylicum, S. pyogenes, L. monocytogenes.*

35. A polypeptide according to Claim 33 wherein the C3 enzyme is selected from the group consisting of C3Stau2, C3Stau1, and C3bot.

36. A polypeptide according to Claim 33 wherein the C3 enzyme is selected from SEQ ID Nos: 1-10.

37. A polypeptide according to any of Claims 25-36 wherein the H_c domain is made recombinantly.

38. A polypeptide according any of Claims 25-37, wherein the inhibitor and the H_c domain are joined to each other directly or via a linker molecule.

39. A polypeptide according to any of Claims 26-37 wherein the inhibitor, the Hc domain and the translocation domain are joined to each other directly or via a linker molecule.

40. A polypeptide according to Claim 38 or 39, wherein the linker molecule is selected from the group consisting of $(GGGGS)_2$, $(GGGGS)_3$, the interdomain linker or cellulase, PPPIEGR, collagen-like spacer, trypsin-sensitive diphtheria toxin peptide, or SEQ ID Nos: 16-24.

41. A polypeptide according to any of Claims 25-40, wherein the polypeptide is a single chain.

42. A polypeptide according to any of Claims 25-40, wherein the polypeptide is a dichain.

43. A polypeptide according to any of Claims 25-42, wherein the polypeptide is re-suspended or diluted in a pharmaceutically acceptable liquid.

44. A polypeptide according to any of Claims 25-42, wherein the polypeptide is contained in a suspension, solution, emulsion, or a freeze-dried powder.

45. Use of a polypeptide of any of Claims 25-44, for the manufacture of a medicament for neuronal cell therapy.

46. Use of an inhibitor of a member of the Rho family of GTPases, for use in the manufacture of a medicament for neuronal cell therapy.

47. Use according to Claim 46 of a C3 enzyme.

48. Use according to Claim 47 wherein the C3 enzyme is derived from *C. botulinum, C. limosum, B. cereus, S. aureus, C. acetobutylicum, S. pyogenes, L. monocytogenes.*

49. Use according to Claim 47 wherein the C3 enzyme is selected from the group consisting of C3Stau2, C3Stau1, and C3bot.

50. Use according to Claim 47 wherein the C3 enzyme is selected from SEQ ID Nos: 1-10.

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